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Safety
NTC AVIATION ACCIDENT PREVENTION PROGRAM

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* This Regulation supercedes NTC Reg 385-95, dated 1 July 1990.

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1. PURPOSE. This regulation establishes the National Training Center (NTC) and Fort Irwin Aviation Accident Prevention Program and prescribes policies and procedures for planning, organizing, controlling, and implementing Department of the Army and FORSCOM aviation safety programs throughout the NTC.

2. APPLICABILITY. This regulation is applicable to all aviation units, personnel and resources assigned or attached to the NTC. Sections of this regulation that are applicable to rotational units and Task Force Aviation Safety Officers (TFASO), along with additional requirements, are indicated in Appendix B.

3. REFERENCES. Required and related references are listed in Appendix A.

4. GENERAL.

a. This regulation is used in conjunction with the NTC Regulation 385-10, National Training Center Safety Program, which establishes the overall NTC safety program. Where differences occur, NTC Reg 385-10 will have precedence for non-aviation activities and this regulation over aviation related activities.

b. The policies and procedures contained in this regulation are minimum requirements. It is intended to be a complete safety program that meets the requirements for aviation unit safety programs, however, commanders may issue additional instructions and directives in order to implement their own aviation accident prevention plan.

5. RESPONSIBILITIES.

a. Commanders. Safety is a command responsibility which cannot be delegated. In addition to the responsibilities outlines in references in Appendix A, aviation commanders will:

(1) Ensure all required accident prevention procedures are complied with and establish additional procedures necessary to ensure the safety of all personnel and equipment under their control.

(2) Ensure a school trained aviation safety officer (ASO) is assigned IAW the TOE/TDA. School trained ASOs filling authorized TOE/TDA positions are not required to be on separate unit orders, however, when a school trained ASO is not available, a commissioned or warrant officer holding a Senior or Master Army Aviator designation will be appointed on unit orders. Every effort will be made to fill the position with a school trained ASO as soon as possible.

(3) Appoint a school trained and qualified aviation safety NCO (ASNCO) on unit orders. If a school trained ASNCO is not available, an NCO (E-6 or above) will be appointed as ASNCO and a quota for the ASNCO course requested as soon as possible.

(4) Appoint individual safety program managers (SPMs) on unit orders, as required (i.e., hearing conservation monitor, FOD officer, etc.).

b. Installation Aviation Safety Officer (IASO). The IASO is a member of the Commanding General's special staff. To consolidate aviation related matters, he is administratively assigned to DPTMSEC Aviation Division but works directly for the Chief of Staff. The IASO will be rated by the Chief of Staff and senior rated by the Commanding General. In addition to installation level duties and responsibilities list in AR 385-95 and FORSCOM Reg 385-1, the IASO will:

(1) Be the proponent for this and other NTC aviation safety regulations and policies.

(2) Conduct a risk analysis of each rotational aviation unit before they begin training at the NTC. Analysis will be based on their overall capabilities and the expected conditions at the NTC during rotation. This information will be provided to the Command and Operations Group.

(3) Give aviation safety briefings to rotational pilots.

(4) Monitor tenant aviation unit safety programs.

(5) Prepare and maintain aviation safety statistics for both assigned and rotational units. Aviation safety statistical information will be prepared after each rotation and included in the After Rotation Safety Review (ARSR).

(6) Ensure Preliminary Reports of Aircraft Mishaps (PRAMs) are properly prepared and transmitted for assigned and rotational units.

(7) Maintain liaison with the Installation Aviation Officer (IAO) and Installation Safety Director.

c. Aviation Safety Officers (ASO): In addition to the responsibilities listed in AR 385-95 and FORSCOM Reg 385-1, unit ASOs will:

(1) Be thoroughly familiar and comply with NTC Reg 385-10 and this regulation.

(2) Monitor all ground and aviation safety programs within their unit. If individual safety program managers are not appointed (e.g., hearing conservation), the ASO is assumed to have responsibility of that position unless otherwise prohibited (e.g., FOD prevention officer).

(3) Maintain consolidated safety files and safety publications for the unit.

(4) Ensure all PRAM worksheets are properly completed and turned in to the IASO within four duty days.

(5) Ensure unit personnel are trained in their individual duties and responsibilities of applicable safety regulations/procedures.

d. Unit Aviation Safety Noncommissioned Officer (ASNCO). The duties of the ASNCO are listed in AR 385-95 and FORSCOM Reg 385-1.

e. Safety Program Managers (SPMs): Individual SPMs may be appointed to perform various duties (i.e., hearing conservation monitor) to ensure that a complete and viable safety program exists within the unit. Responsibilities of SPMs are outlined in applicable publications (Appendix A), the Commander's Aviation Accident Prevention Plan (CAAPP), and/or the unit SOP. Each SPM is expected to know his or her responsibilities IAW all related directives.

6. SAFETY ADMINISTRATION:

a. ASOs will maintain a master safety reference library of all required publications listed in Appendix A. ASOs are encouraged to expand their safety reference library.

b. Each SPM appointed on unit orders or identified by position in the CAAPP will maintain or have references available, necessary to effectively manage their program.

c. Functional safety files will be maintained IAW AR 25-400-2, The Modern Army Record Keeping System (MARKS). Files will be maintained by fiscal year. ASOs/ASNCOs are encouraged to maintain copies of all correspondence forwarded to higher channels. As a minimum, the following files will be maintained at unit level:

(1) 95-3, Flight Safety Message Files (for assigned aircraft)

(2) 385, General Safety Correspondence Files

385, Commander's Safety Philosophy
385, Commander's Aviation Accident Prevention Plan
385, SOP's (Safety)

- (3) 385-10b, Safety Hazards
 - 385-10b, Operational Hazard Report Files
 - 385-10b, Hazard Inventory Logs
 - 385-10b, Accident Prevention Worksheets
- (4) 385-10c, Safety Awareness Files
 - 385-10c, Newcomer's Safety Briefings
 - 385-10c, Monthly Aviator Safety Meetings
 - 385-10c, Monthly Enlisted Safety Meetings
 - 385-10c, Preholiday Safety Briefings
 - 385-10c, Safety Posters, etc.
- (5) 385-10f, Accident and Incident Cases
 - 385-10f, DA Form 285 Reports
 - 385-10f, Accident/Injury Logs
 - 385-10f, Aviation Safety Exposure Reports
- (6) 385-10i, Safety Surveys
 - 385-10i, Quarterly Safety Inspections
 - 385-10i, FOD Inspections
 - 385-10i, Fire Prevention Inspections
 - 385-10i, POV Inspections
 - 385-10i, Semiannual ARMS
 - 385-10i, Higher Headquarters Inspections
- (7) 385-40a, Accident Experience Files
 - 385-40a, Exposure Reports (NTC Form 18)
- (8) 385-95a, Aviation Safety Statistics
- (9) 385-95b, Aviation Safety Council Files
 - 385-95b, NTC Safety Council Minutes
 - 385-95b, Unit Aviation Safety Council Minutes
 - 385-95b, Unit Enlisted Safety Council Minutes
- (10) 385-95c, Aviation Accident and Incident Cases
 - 385-95c, PRAMS
 - 385-95c, Aircraft Accident Reports

(11) 672-74a, Safety Awards

672-74a, Safety Awards (Suspense)
672-74a, Individual Awards (Received)
672-74a, Unit Awards (Received)

7. SAFETY EDUCATION AND TRAINING:

a. New Personnel Safety Briefings: All newly assigned personnel will receive a safety briefing from the ASO/ASNCO/Commander/1SG within 72 hours of being assigned IAW NTC Reg 385-10. The ASO will maintain a record of this briefing in the unit safety files for two years and will include the individual's name, rank, section, and date briefed. The following topics will be covered:

- (1) Commander's safety philosophy and accident prevention plan.
- (2) Individual's role and responsibilities in the safety program.
- (3) Accident reporting procedures.
- (4) Ammunitions, explosives, and pyrotechnics safety.
- (5) The safety awards program.
- (6) Foreign object damage (FOD) prevention program (Avn MOSSs)
- (7) Specific in-house operating safety standards.
- (8) Seasonal safety issues.
- (9) Safety council functions and procedures.
- (10) POV accident prevention and seat belt requirements.
- (11) Fire prevention and the fire evacuation plan.

b. All newly assigned crewmembers will receive a safety briefing from the ASO prior to their first flight. The ASO will record the briefing on FORSCOM Form 81-1-R or 81-2-R (or current form in use) in their ATM records. The following topics will be discussed:

- (1) Crew coordination.
- (2) Use of checklists.

- (3) POL operations and safety.
- (4) Responsibilities when involved in an aviation mishap.
- (5) Operational hazard reports (OHR).
- (6) Unit crew endurance policy.
- (7) FOD prevention.
- (8) Wire strike prevention.
- (9) Aviation Life Support Equipment (ALSE).

c. Monthly Safety Training:

(1) Aviation safety meetings will be conducted IAW FORSCOM Reg 385-1. Personnel that miss a required monthly safety meeting must attend a make-up meeting, review the lesson plan, or receive a briefing from the ASO/ASNCO or instructor that presented the class. Exceptions are personnel who were on leave or TDY for more than 15 days during the month, including the day of the class. Safety meetings should be held in an informal atmosphere to encourage two-way communication.

(2) All crewmembers attached to the unit for flight duties will be invited to attend and the monthly training requirements apply.

(3) A monthly accident prevention theme is a useful method to ensure timely and pertinent subjects are scheduled for development and discussion throughout the year while meeting the 12 month schedule required by FORSCOM Reg 385-1. In addition to the training required by FORSCOM Reg 350-3, the following subjects will be covered at least annually for all crewmembers:

- (a) Heat injury prevention, symptoms, and treatment.
- (b) Cold injury prevention, symptoms, and treatment.
- (c) Crewmember responsibilities when involved in a mishap.

(4) The ASO/ASNCOs will schedule or coordinate both the monthly and make-up safety meetings. This training should be annotated on the unit training schedule. Safety meetings may be conducted at the platoon/section level since safety meetings should be job/aircraft related. Assigning NCOs as instructors for enlisted safety classes is a good method to ensure supervisor involvement in the safety program.

(5) ASOs will establish procedures in the unit SOP to ensure personnel do not perform flight duties until the safety/make-up meeting requirements are met.

c. Safety Bulletin Boards: ASOs will ensure that safety bulletin boards are displayed in aviation maintenance and operations areas. Safety posters should be changed frequently to provide varying and new information. Safety bulletin boards will include the following:

- (1) Commander's safety philosophy.
- (2) Name and work phone number of the unit ASO and ASNCO.
- (3) Blank Operational Hazard Report Forms (DA Form 2696-R).
- (4) Minutes of the most recent unit safety council meeting.
- (5) Appropriate flight/maintenance/seasonal safety posters.

d. ASO Training: ASOs are encouraged to further their safety education and training. In addition to courses offered by the United States Army Safety Center, the organizations listed below offer specialized aviation safety education and training:

- (1) University of Southern California
927 W. 35th Place, Room 102
Los Angeles, CA 90089-0021
(213) 743-6523
- (2) International Center for Safety Education
P.O. Box 968
Tempe, AZ 85280
(602) 966-6690
- (3) Aviation Safety Organization
3946 Starhill Drive
San Antonio, TX 78218
(512) 829-SAFE

8. SAFETY INSPECTIONS (HAZARD IDENTIFICATION):

a. The ASO/ASNCO will conduct quarterly safety inspections of all unit areas using the checklists in Appendix A, NTC Reg 385-10. Open deficiencies will be recorded on DA Form 2404. A copy will be left with the supervisor responsible for the area inspected and will include a suspense date (usually not more than 14 days) for corrective actions. The supervisor will annotate the corrective action on the DA Form 2404 and return it to the ASO/ASNCO before the suspense date.

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Deficiencies requiring a work order to correct will include the work order number in the corrective action block. The ASO will review forms for appropriate corrective action and the commander will sign the bottom of the DA Form 2404; follow-up inspections will be scheduled as necessary. ASOs will maintain copies of inspections in the unit safety files for two years. Deficiencies that cannot be corrected at unit level will be forwarded through appropriate channels.

b. ASOs will conduct Aviation Resources Management Surveys (ARMS) of all applicable areas in their unit IAW AR 385-95 and FORSCOM Reg 385-1. The most recent edition of the "Guide to Aviation Resources Management for Aircraft Mishap Prevention" or FORSCOM Pam 95-3 will be used. DA Form 2404 may be used to record and track discrepancies as described above, however, the ASO will forward a report of unit inspections to the IASO, ATTN: AFZJ-PTA.

c. Higher Headquarters Inspections: Corrective actions to discrepancies of higher headquarters inspections will be forwarded thru/to the DPTMSEC Aviation Division.

d. Copies of all inspections will be maintained in the unit safety files for two years.

e. ASOs will perform analyses of all safety inspections IAW para 9 below.

9. HAZARD ANALYSIS AND RISK ASSESSMENT:

a. Safety officers are responsible for hazard analysis and risk assessment IAW AR 385-10. ASOs must analyze information to determine the "systemic" cause; that is, the root cause that allowed the deficiency to occur (e.g., lack of training). Risk assessment is performed to prioritize corrective action implementation, since it is unlikely all systematic causes can be corrected immediately. Risk assessment helps the commander determine the deficiencies requiring immediate action and those unlikely to cause an accident. In order to help determine systemic causes, causation-analysis will be performed using the Army's five step accident prevention process outlined below:

(1) Information Collection: Sources of information include, but are not limited to: safety inspections, questionnaires, accident/mishap reports, blotter reports, admission and disposition (A&D) sheets, etc.

(2) Analysis: Raw data has very little value and must be analyzed to be useful. In order to properly analyze data, it must be grouped into similar areas. An excellent way to do this is to group data into safety program elements (i.e., fire prevention, FOD prevention, etc.) which will help identify the responsible individual. Analysis is then performed to determine if systemic defects exist.

(3) Countermeasure Development: This must be aimed at fixing both the immediate hazard and any systemic defects that allowed the deficiency to occur. Countermeasures requiring an excessive amount of time to implement should have interim countermeasures assigned.

(4) Implementation: This establishes WHO will do WHAT by WHEN. It assigns the responsibility of the countermeasure to an individual, describes what will be done to put the countermeasures into effect, and assigns a suspense date for completion.

(5) Control Measures: A procedure, policy, etc., established to ensure a countermeasure is working as intended. Specifically, a control measure should determine if the countermeasure eliminated or controlled the problem.

b. Procedures:

(1) When an open deficiency exists from a safety inspection, or a systems defect is discovered or suspected as the root cause of the deficiency, it will be recorded on an Hazard Inventory Log, AFZJ-PT Form #910 (Appendix C). Separate logs will be maintained for each applicable prevention program (i.e., FOD, hearing conservation, etc.) and both the program manager and ASO will maintain a copy. If a program cannot be determined, it will be logged on a general hazard log and maintained by the ASO. Each log will be filled out completely and risk assessment codes assigned using the severity/probability matrix in AR 385-10. To ensure command involvement, the program coordinator is always the program manager's immediate rater.

(2) Hazards involving systemic problems will also be recorded on an Accident Prevention Process Worksheet, AFZJ-PT Form #909 (Appendix D). Worksheets will be assigned a control number which can be cross-referenced to the hazard inventory log.

(3) Hazard Inventory Logs and Accident Prevention Worksheets will be maintained in the unit safety files for two years.

10. ACCIDENT REPORTING AND INVESTIGATION:

a. Reportable Accidents: All accidents resulting in injury (greater than first aid) or damage to government property will be reported to the ASO regardless of severity; whether it occurred on or

off post; or whether it occurred on or off duty. The ASO/ASNCO will record all accidents on an Accident/Injury Log, AFZJ-PT Form #908 (Appendix E).

b. Recordable Accidents:

(1) All aviation mishaps (CLASS A thru E) are recordable IAW AR 385-40. ASOs will ensure a Preliminary Report of Aircraft Mishap (PRAM) worksheet, AFZJ-PT Form #455 is filled out by the pilot-in-command. The ASO will ensure completeness, including a QDR number (if applicable) and proper codes (DA Pam 385-95), and forward it to the IASO within four work days. The IASO will ensure the Joint Message Form (DD Form 173/2) is prepared and transmitted. The IASO will return a copy of the completed DD Form 173/2 to the unit ASO.

(2) Recordable ground accidents are defined in AR 385-40 and NTC Reg 385-10 and will be reported using DA Form 285. If you are not sure an accident is recordable, request assistance from the installation safety office, x5093/5076. When an accident occurs, the commander is responsible for insuring a complete investigation is conducted. The unit ASO will assist in completing the DA Form 285 and submit it through command channels to the installation safety office, ATTN: AFZJ-CSS.

c. Whenever a Class A or B accident occurs, immediately notify the chain of command and take necessary actions IAW AR 385-40, FORSCOM Reg 385-1, and NTC Reg 385-10. In the event of an aviation mishap involving any damage or injury, the IASO will also be notified as soon as possible (x4072).

d. Whenever the classification of an aviation mishap is questionable, it will be reported at the next higher classification and appropriate actions initiated. If subsequent investigation reveals a lower classification, it will be downgraded accordingly.

e. Because aircraft mishap classifications are often time consuming, all crewmembers will have blood and urine samples taken following any aviation mishap resulting in known or suspected damage or injury, regardless of the severity. This includes mishaps that require component changes resulting from a crewmembers action (e.g., engine hot start, overtorque, etc.). MEDEVAC will be used whenever possible to transport crewmembers to the hospital.

f. Pre-Accident Plans:

(1) The Bicycle Lake Army Airfield (BLAAF) Manager/Operations Officer is responsible for the adequacy of the NTC Pre-Accident Plan.

(2) Each aviation unit operations officer is responsible for developing a unit pre-accident plan implementing unit personnel responsibilities in the event of a mishap. All operating personnel and personnel performing unit SDO/SDNCO/CQ duties will be knowledgeable of this plan.

g. Aviation Exposure Reports: Each tenant unit ASO will provide an Aviation Exposure Report (Appendix F) to the IASO following each rotation. The reporting period will include day 21 of the previous rotation through day 20 of the reported rotation (using the 28-day model). The suspense date to the IASO is rotation day 25. Maximum leave periods will be included when applicable.

h. All accident records will be maintained in unit safety files for 2 years.

11. AVIATION SAFETY COUNCILS:

a. General: Aviation safety councils will be established IAW FORSCOM Reg 385-1 to provide a major focal point for safety programs and to promote accident prevention efforts from the command/supervisory level.

b. Functions of Aviation Safety Councils:

(1) Safety councils serve as a primary forum for commanders to task key program managers and supervisors to carry out their accident prevention responsibilities.

(2) Safety Councils will:

(a) Identify problem areas through the exchange of ideas, discussions, and reports of existing deficiencies.

(b) Analyze hazards to determine systematic causes. Council minutes will track hazards and systematic problems through their resolution.

(c) Develop countermeasures to correct systematic problems and develop policies and procedures to eliminate or control the identified systematic problems.

(d) Assign responsibilities by identifying who will do what by when in implementing the identified countermeasures.

(e) Develop control measures to help monitor the effectiveness of each countermeasure.

c. Membership:

(1) Installation Aviation Safety Council: Due to limited organic aviation at the NTC, the Installation Aviation Safety Council is consolidated with the Installation Aviation Standardization Committee as the Installation Aviation Safety and Standardization Committee (IASSC) IAW NTC Supplement 1 to AR 95-3. Aviation safety issues that cannot be resolved by the IASSC will be forwarded to the Installation Safety and Occupational Health Committee.

(2) Unit Safety Councils.

(a) Membership of unit safety councils will be IAW AR 385-95 and FORSCOM Reg 385-1 with additional members appointed by the unit commander as needed. Council members will either be identified by position in the CAAPP or appointed on unit orders. Unit orders may appoint members by position.

(b) The 247th Medical Detachment and the 3/159th Aviation Battalion (-) are authorized to consolidate their aviation and enlisted safety councils.

(c) Systematic problems that cannot be resolved at unit level will be forwarded to the IASSC.

c. Procedures:

(1) The recorder will schedule and coordinate the quarterly and other safety council meetings called by the president. The recorder will prepare minutes and have them approved by the Chairperson/President of the council. Minutes will include: members present, members absent/non-represented, old business, and new business. All issues requiring action will include the responsible individual and a suspense date. Open issues will be carried forward as old business until the action is completed or the issue is voted closed.

(2) The ASO will prepare accident prevention process worksheets on applicable systematic problems.

(3) A copy of the minutes will be placed in the Aircrew Information Reading File (AIRF) and additional copies will be displayed on unit safety bulletin boards, and one forwarded to the IASO.

(4) Minutes will be maintained in safety files for 2 years.

12. OPERATIONAL HAZARD REPORTS (DA FORM 2696-R)

a. Operational Hazard Reports (OHR) are safety tools that may be used only for accident prevention purposes and only for aviation related hazards.

b. Flight violations (AR 95-3) are independent of OHRs and will not be handled by unit ASOs. They will be referred to the unit commander or operations officer.

c. General procedures and instructions for completing OHRs are listed in Chapter 2, AR 385-95. Local procedures are as follows:

(1) OHRs will be investigated and answered at the lowest command level possible. OHRs will be forwarded immediately to the IASO when an investigation is required outside the receiving unit, or when recommendations exceed the unit's capabilities.

(2) The appropriate ASO will complete and sign block 11 of DA Form 2696-R, and forward it to his/her commander.

(3) The appropriate commander will review the recommendation made by the ASO. He will then complete and sign block 12 and return it to the ASO. The DPTMSEC/G3 aviation officer and IASO are both designated representatives for the commanding general for all OHR actions.

(4) Anonymous OHRs will be displayed on the unit safety bulletin board for 2 weeks after completion.

(5) ASOs will maintain copies of all OHRs received in the unit safety files for 2 years.

13. SAFETY AWARDS:

a. General:

(1) Supervisors, program managers, and soldiers must be recognized for their outstanding effort and participation in the unit safety program.

(2) Although the criteria for receiving safety awards are usually objective, supervisors and commanders at all levels should be subjective in their recommendations. Personnel should only be recommended who have actively contributed to the accident prevention effort, not because they did not have an accident. Soldiers who are frequently observed violating safety standards, such as not wearing seat belts, should not be recommended for safety awards regardless of their accident-free record.

b. Authorized Safety Awards - Authority/Procedures:

(1) Unit Awards:

- (a) Director of Army Safety Award - AR 672-74.
- (b) United States Army Awards of Accomplishment, Honor, and Excellence in Safety - AR 672-74.
- (c) Commanding General's Special Safety Award (FORSCOM) - AR 672-74.
- (d) FORSCOM Commander's Aircraft Accident Prevention Award - FORSCOM Reg 385-1.
- (e) FORSCOM Commander's Certificate of Achievement - FORSCOM Reg 385-1.
- (f) NTC No DUI Award - NTC Reg 385-10.

(2) Individual Awards:

- (a) Chief of Staff, Army, Award for Excellence in Safety - AR 672-74.
- (b) United States Army Safety Guardian Award - AR 672-74.
- (c) United States Army Broken Wing Award - AR 672-74.
- (d) Director of Army Safety Special Award of Excellence - AR 672-74.
- (e) United States Army Motor Vehicle Driver Safety Award - AR 672-74.
- (f) United States Army Aircrew Member Safety Award - AR 672-74. Note: NTC Form 1-94 or AFZJ-SB Form 868, signed by the NTC commanding general may be issued in lieu of DA Forms 1118 and 1119-1. The provisions of AR 672-74 apply and recommendations will be processed as outlined in Paragraph d(2) below.
- (g) Drivers, Mechanics, and Operator's Badges - AR 672-5-1.
- (h) Certificate of Achievement in Safety (FORSCOM Form 1012) signed by the commanding general, NTC - Presented to crewmembers for each 250 hours flown without a Class A, B, C, or D aviation mishap

while assigned to the NTC. Mishaps that were not crewmember related will not be counted against them. Recommendations for this award will include: individuals name, rank, SSAN, hours flown while assigned to the NTC, total flight hours, duty position, and dates assigned to the NTC.

(i) Other individual safety awards (DA Forms 1118, 1119, and 1119-1) that are of enough significance to request the commanding general's signature will be fully justified and forwarded through command channels to the IASO.

(3) Units are encouraged to establish their own unit safety awards program. Impact awards should be presented in recognition of outstanding achievement for promoting safety in unit operations or when a personal action prevented injury or damage to government equipment. Impact awards may be those authorized above, 3/4 day passes and/or other incentives as determined by the commander.

d. Procedures:

(1) The ASO will monitor and review individual safety awards for all assigned and attached personnel.

(2) Recommendations for individual safety awards will be approved by the individual's immediate supervisor and chain of command. Recommendations for aviation related safety awards requiring command action above battalion level will be forwarded through the IASO.

(3) Copies of each recommendation will be maintained in a suspense file until action is complete; then maintained in unit safety files for 2 years.

14. FOREIGN OBJECT DAMAGE (FOD) PREVENTION:

a. FOD prevention programs/SOPs will be established at unit level IAW AR 385-95 and FORSCOM Reg 385-1.

b. All crewmembers, aviation maintenance personnel, and POL personnel will wear sew-on insignia in place of pin-on insignia while working in or around aircraft.

c. Personnel will not wear hats on the flight line within 100 meters of operating aircraft. The standard issue "pile" cap or individually purchased stocking cap (black or navy blue) are authorized on flight lines during cold weather and may be worn near operating aircraft.

d. FOD deficiencies that cannot be resolved at unit level will be forwarded to the IASO for action or may be presented to the IASSC.

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15. MISSION RISK ASSESSMENT:

a. Each unit will have a written aviation mission risk assessment program, including a risk assessment worksheet IAW FORSCOM Reg 385-1. This program should be included in the unit operations/standardization SOP. A copy of the risk assessment program and worksheet will be provided to the IASO for review.

b. Risk assessment programs should be designed to manage risks, not just identify them. Efforts to reduce the risk level (e.g., using a more experienced crew) should be made before requesting approval for higher risk missions.

c. Medium risk mission must be approved by the unit commander and high risk missions must be approved by the battalion commander or above, except the Commander, 247th Medical Detachment may approve high risk missions for urgent MEDEVAC missions. The DPTMSEC/G3 Aviation Officer is a designated approval authority (acting for the commanding general) if the battalion commander cannot be reached. Approval authority will not be further delegated. Approval may be telephonic; however, it must be annotated on the mission brief or risk assessment worksheet. It is not necessary for the approval authority to brief the mission. High risk missions will not be approved for training flights.

16. CREW ENDURANCE:

a. Aviation commanders will ensure a crew endurance program, tailored to the unit's mission is established IAW AR 95-3. This program should be included in the unit operations/standardization SOP and will include a method of tracking/monitoring flight and duty hours.

b. The following limits are the "maxima" allowed in unit crew endurance programs and are applicable to individuals performing flight duties and logging flight time IAW AR 95-1. The duty hour limits are recommended for all other personnel. These limits are not intended to prevent commanders from requiring personnel to work longer hours for non-flying duties, nor do they prohibit commanders from having additional requirements.

TIME PERIOD	MAX FLIGHT TIME (Factored time)	MAX DUTY HOURS (Garrison)	MAX DUTY HOURS (Field)
24 hrs	8 hrs	14 hrs*	16 hrs *
48 hrs	16 hrs	28 hrs	30 hrs
72 hrs	22 hrs	40 hrs	42 hrs
7 days	42 hrs	76 hrs	84 hrs
30 days	90 hrs	280 hrs	300 hrs

* 12 hours is the maximum for scheduled NVG flight.

c. Rest Periods:

(1) All crewmembers will be allowed a minimum of 10 hours (garrison) or 8 hours (field) of "uninterrupted" rest prior to starting a new duty day. Uninterrupted rest begins when the crewmember is officially released and ends when he/she is "required" to be at a place of duty (includes PT, pre-flights, briefings, etc). MEDEVAC and other standby crews, see Paragraph d below. Whenever maximum duty hours are exceeded, the rest period must be extended by the number of duty hours that were exceeded prior to an individual starting a duty day involving flight duties.

Example 1: A crewmember works 18 hours (garrison). He/she is now required 14 hours rest ($10 + 4$) if followed by a flight related duty day. The following flight duty day is also limited to only 10 duty hours ($28 - 18 = 10$).

Example 2: A crewmember works three 14-hour days in a row while in garrison. He/she is now required 12 hours rest before beginning a flight duty day because he/she has exceeded the 72-hour limit by 2 hours ($3 \times 14 - 40 = 2$; $10 + 2 = 12$). Only 34 duty hours are available during the next 4 days ($76 - 42 = 34$).

(2) It is the responsibility of each crewmember to use rest periods wisely to ensure he/she is adequately rested.

d. Exceptions:

(1) Because of 24-hour shifts and nature of the duty, the 247th Medical Detachment is authorized to adjust the maximum duty hours for first and second-up crewmembers to provide continuous 24-hour coverage. Provisions will be established in their crew endurance program to ensure fatigued crewmembers are not allowed to perform flight duties.

(2) MEDEVAC and other standby duties may be treated as rest periods and need not be counted as duty hours, provided sleeping accommodations are available and the crewmembers meet the other uninterrupted rest requirements. For all MEDEVAC and standby duty, the 8-hour field rest period may be used.

e. Extensions:

(1) Unit commanders are authorized to grant extensions for up to 2 additional duty hours and 1 additional flight hour on a case-by-case basis. Whenever an extension is granted, the subsequent

minimum rest period will be increased by the total number of hours extended (flight hours plus duty hours) if followed by a flight related duty day. The additional flight hour will not increase the total duty hours.

Example: A crewmember (garrison) is granted an extension of 2 duty hours and 1 flight hour. He/she is now required to have a 13-hour rest period (10 + 2 + 1) before starting another flight duty day.

(2) Unit commanders are authorized to grant extensions to 30-day limits only after the crewmember has been evaluated by a flight surgeon. Whenever an extension to the 30-day limit has been granted, no other extensions (Paragraph e[1] above) are allowed.

(3) Unit commanders are not authorized to grant extensions to a crewmember 2 days in a row.

f. Waivers:

(1) All other exceptions to these limits will be automatically considered as "high risk" missions and require a waiver which must be approved by the battalion commander or above. The DPTMSEC Aviation Officer is a designated waiver authority (acting for the commanding general).

(2) Waivers are not authorized that reduce the required minimum rest period more than 2 hours (Paragraph c and e above).

g. General: All extensions/waivers will be annotated on the mission briefing sheet (DA Form 5484-R) in Block 6 (Briefing, Additional Remarks - when granted before take off) or block 5 (Post - Mission Debrief, Remarks - when granted after take off) and will include the limits of the extension/waiver and who approved it. If required, risk assessments will be reevaluated and considered prior to granting the extension or waiver.

17. WIRE STRIKE PREVENTION:

a. All crewmembers will be briefed on their responsibilities in wire strike prevention as part of their initial in-briefing and at least annually thereafter.

b. Spur-of-the-moment terrain flight is strictly prohibited. Terrain flight must be authorized and annotated on the mission briefing sheet showing all authorized flight mode(s).

c. PICs will ensure a current hazards map is available and used during all contour and nap-of-the-earth flights.

d. Terrain flights (below 200 feet AGL) outside authorized training areas are prohibited except for landings/takeoffs; complying with established procedures (e.g., Coyote Lake @ 100 feet AGL); or to comply with ATC instructions. Flights below 500 feet AGL outside authorized training areas are prohibited, except as previously mentioned or because of weather. Pilots are encouraged to use higher altitudes whenever possible to foster a "fly neighborly" attitude and encourage civilian support for the military.

e. BLAAF operations will maintain a master hazards map for the Fort Irwin military reservation.

(1) Aviators will notify BLAAF operations or the IASO whenever additional hazards are discovered or when previous hazards are no longer present. Notification will include hazard type and grid location. BLAAF operations personnel are responsible for updating the master hazards map.

(2) The IASO is responsible for conducting annual wire hazards surveys to verify the hazards information.

18. SAFETY OF FLIGHT (SOF)/AVIATION SAFETY ACTION MESSAGES (ASAM):

Upon receipt of a SOF/ASAM, the IASO will verify that each appropriate aviation unit (assigned and rotational) has received the message.

19. AVIATION LIFE SUPPORT EQUIPMENT (ALSE):

a. Each aviation unit's ALSE program will be established IAW AR 95-3. ALSE problems that cannot be corrected at unit level will be brought to the attention of the IASSC.

b. Aviation unit commanders are responsible for ensuring personnel who participate in regular and frequent flights in their aircraft receive ALSE and emergency procedures training IAW Paragraph 7-10, AR 95-3. The following personnel require regular and frequent flights aboard NTC assigned aircraft and ALSE training will be provided to them by the unit indicated:

(1) Commanding General - 3/159th Aviation Battalion.

(2) Commanding General's Aide de Camp - 3/159th Aviation Battalion.

(3) Commander, Operations Group - 3/159th Aviation Battalion.

(4) Weed Army Community Hospital emergency room doctors who frequently accompany patients during transfers - 247th Medical Detachment.

20. CREWMEMBER PROCEDURES WHEN INVOLVED IN A MISHAP:

a. Primary aircraft mishap/emergency procedures are outlined in the NTC Aviator's Procedures Guide.

b. The PIC will complete a PRAM worksheet which will be turned in to the unit ASO NLT 8 duty hours after the mishap occurred. Unit ASOs will process PRAMS IAW Paragraph 10.

21. ADDITIONAL INFORMATION:

a. IAW AR 385-95, commanders must ensure safety is incorporated into all activities and work areas. To ensure this, safety procedures will be included in the appropriate "user" SOPs (i.e., maintenance, operations, etc). Each SOP will include safety procedures or reference the publication(s) that list specific safety procedures for all applicable tasks. ASOs will assist supervisors in developing safety standards where required.

b. The success of all officers, supervisors, and operating personnel in performing safety and occupational health responsibilities will be considered in performance appraisals (OER/SEER/EER) IAW AR 385-10.

APPENDIX A

REFERENCES

SECTION I. Required Publications. ASOs are required to maintain these publications as part of their safety library:

AR 95-1, Aviation, Flight Regulations

AR 95-3, Aviation: General Provisions, Training, Standardization, and Resource Management

AR 385-10, Army Safety Program

AR 385-40, Accident Reporting and Records

AR 385-55, Prevention of Motor Vehicle Accidents

AR 385-95, Army Aviation Accident Prevention

AR 672-74, Army Accident Prevention Awards Program

DODI 6055.7, Mishap Investigation, Reporting, and Record Keeping

FORSCOM Reg 350-3, Training

FORSCOM Reg 385-1, FORSCOM Safety Program

FORSCOM Supplement 1 to AR 95-1

FORSCOM Supplement 1 to AR 95-3

NTC Reg 95-27, Procedures for Aircraft Carrying Hazardous Cargo

NTC Reg 385-10, National Training Center Safety Program

NTC Reg 385-95, National Training Center Aviation Safety Program

NTC Supplement 1 to AR 95-1, 2, and 3

DA PAM 385-1, Unit Safety Management

DA PAM 385-95, Safety: Aircraft Accident Investigation and Reporting

SECTION II. Related Publications. ASOs are not required to maintain these publications, but are encouraged to have them available for reference.

APPENDIX A

Related publication listed in AR 385-95 and FORSCOM Reg 385-1

AR 95-26, Aircraft Firefighting and Rescue

NTC Reg 200-6, Hazardous Materials/Waste Management Program

NTC Reg 350-3, Range Regulations

NTC Reg 420-1, Facilities Engineering Functions and Procedures

NTC Memorandum 1-2, Administration: Staff Procedures

TM 5-803-4, Planning of Army Aviation Facilities

TM 5-823-4, Army Airfield-Heliport Operational and Maintenance
Facilities (Marking)

APPENDIX B

REQUIREMENTS FOR ROTATIONAL AVIATION UNITS

1. Aviation task force commanders are responsible for complying with this Appendix and the following sections of this regulation:

- Para 4: Subparagraph a.
- Para 5: Subparagraphs c(1), (4), and (5).
- Para 10: Subparagraphs b thru e and f(2).
- Para 12: Subparagraphs a thru c(1).
- Para 17: Subparagraphs b thru d and e(1).
- Para 20: All

2. The aviation task force commander will designate a qualified school trained aviation safety officer as the Task Force ASO (TFASO). The TFASO should contact the NTC IASO (AV 470-4072) at least 1 month prior to the start of their rotation for an NTC TFASO Packet. During the rotation, the TFASO should be allotted time to coordinate with the NTC IASO (Bldg 6212, Bicycle Lake Army Airfield) at least every other day during normal duty hours. The TFASO is required to inprocess and clear through the NTC IASO or his designated representative prior to the units departure from the NTC.

3. The TFASO must provide the NTC IASO with a list of the following, either before or immediately after arrival at the NTC.

a. All aircraft by type, tail number, and owning unit to include UIC.

b. A list of all pilots and aerial observers who will be flying at the NTC. The list will include full name, rank, SSAN, total flight time (nearest 50 hours), total NVG/NVD time (nearest 10 hours), primary aircraft, and number or previous NTC rotations (flying only). Note: It is important that this list is provided as soon as possible before the rotation training begins. Minor personnel changes are not important since this information is used primarily for statistical analysis.

4. The TFASO will ensure all preliminary reports of aircraft mishaps (including self-deployment, rotation, and redeployment) that do not go through the NTC IASO include the following:

- a. Message addressee: CDR NTC FT IRWIN CA //AFZJ-PTA//
- b. Block 13d,5: FTX = YES, NAME = X06

APPENDIX B

5. Prior to departing the NTC for redeployment, the TFASO must provide the IASO with an NTC Rotation Aviation Safety Exposure Report. The TFASO may use the form provided in the NTC TFASO Packet or it can be hand written including the following information:

- a. Number of aircraft that participated, by type.
- b. Total hours and NVG/NVD hours by aircraft type (including hours during deployment and estimated for redeployment). Note: All hours are aircraft hours, not flight crew hours.
- c. Total number each of aviators and AOs/AFSOs who participated. Do not include staff personnel that did not fly.
- d. Completed Aviation Safety Opinion Surveys (AFZJ-PT Form #544). Sufficient quantities were provided to the TFASO.
- e. Highest flight time flown by a crewmember during rotation.

NTC Reg 385-95

HAZARD INVENTORY LOG

SAMPLE

AFZJ-PT FORM #910 1 FEB 92

APPENDIX D

ACCIDENT PREVENTION PROCESS
- WORKSHEET -

PROGRAM:	DATE:	RAC:
PROGRAM MANAGER:	PROGRAM COORDINATOR:	
ANALYSIS Potential cost (injury, damage, mission impairment, etc.) 		
System Defect (support if necessary) 		
COUNTERMEASURE (List countermeasures for system defect. List interim countermeasures required.) 		
IMPLEMENTATION (WHO will do WHAT by WHEN) 		
CONTROL (Establish measureable standards to indicate whether the countermeasure eliminated or controlled the system defect) 		

NTC Reg 385-95

ACCIDENT / INJURY LOG

[illegible]

AFZJ-PT FORM #908 1 FEB 92

1 February 1992

APPENDIX F

SAMPLE

DEPARTMENT OF THE ARMY
Headquarters, National Training Center and Fort Irwin
Fort Irwin, California 92310-5000

AFZJ-SBF

1 January 1992

MEMORANDUM FOR Installation Aviation Safety Officer, ATTN: AFZJ-PTA
(ASO) Fort Irwin, CA 92310-5000

SUBJECT: Aviation Safety Exposure Report

1. Reporting Unit: 3/159th Avn Bn (-)
2. Rotation Number: 92-03
3. Inclusive Dates: 17 Nov 91 thru 14 Dec 91
4. Aircraft Information:

<u>TYPE AIRCRAFT</u>	<u>NUMBER ASSIGNED</u>	<u>TOTAL HOURS</u>	<u>NVG/NVD HOURS</u>
OH-58A+	6	132.4	7.2
JUH-1	4	87.1	3.5
UH-1H	20	370.0	16.4
U-21	1	21.4	0.0

5. Mishap Information:

<u>DATE</u>	<u>MTDS</u>	<u>ACFT SN</u>	<u>CLASS</u>	<u>BRIEF DESCRIPTION</u>
911211	UH-1H	71-20057	E	PL, Eng Oil Press Low

6. Number of Safety Briefings Given: 3
7. Number of Personnel Briefed: 132

John S. Doe
CW2, USA
Aviation Safety Officer

SAMPLE

1 February 1992


NTC Reg 385-95

The proponent of this regulation is the Installation Aviation Safety Office, DPTMSEC. Users are invited to send comments and suggested improvements on DA Form 2028 (Recommended Changes to Publications and Blank Forms) to commander, NTC and Fort Irwin, ATTN: AFZJ-PTA (ASO) Fort Irwin, CA 92310-5000

FOR THE COMMANDER:

OFFICIAL:

WILLIAM S. WALLACE
COL, GS
Chief of Staff


WILLIAM F. MICHELSON
MAJ, SC
Director of Information Management

DISTRIBUTION:

A
AFZJ-IMA (2)
BASOPS Contractor (25)
ATXY-AV (10)
AFZJ-SB (5)
AFZJ-SBF (10)
AFZJ-SBT (10)
AFZJ-CSS (3)
AFZJ-PTA (75)